18. A boomerang comprising:

a center part comprising at least one opening for attaching to a launcher,

a plurality of blades extending radially from the center part, the inner ends of the blades coupled to the center part, wherein the blades are evenly distributed about the center part, wherein the blades comprise a front edge and a rear edge, the front edge describing a leading portion of the blades when the boomerang is in a rotational motion and the rear edge describing a trailing portion of the blades when the boomerang is in the rotational motion, wherein the blades have an elevation angle α_0 from about 10° to about 45°, wherein the blades comprise a polymer selected from the group consisting of polyvinyl chloride, polypropylene, polyethylene terephthalate, polystyrene and high impact polystyrene, wherein the specific weight of the polymer is from about 0.9 to about 1.60 g/cm^3; and wherein the thicknesses of the blades is from about 0.1 mm to about 1 mm; and

a ring, wherein the inner perimeter of the ring is mounted on the outer ends of the blades;

wherein the inner ends of the blades comprise a first groove on the rear edge of the blades and the outer ends of the blades comprise a second groove on the rear edge of the blades, the first groove spaced apart from the second groove along the rear edge of the blades, the first groove and the second groove each join the rear edge through curved zones of transition;

wherein the inner ends of the blades comprise a third groove on the front edge of the blades and the outer ends of the blades comprise a fourth groove on the front edge of the blades, the third groove spaced apart from the fourth groove along the front edge of the blades, the third groove and the fourth groove each join the front edge at an intersection point;

wherein an initial curve radius of the blades is at least 1/5 of the radius of the ring, the initial curve radius describing an extent of upward deflection of the blades when the boomerang is motionless, the ratio between the distance between the second groove and the fourth groove, and the width of the blade is from about 1/7 to about 6/7, the ratio between a distance between the first groove and the third groove, and the width of the blade is from about 1/7 to about 6/7, and the total area of the blades is from about 12.5% to about 38% of the area of a circle defined by the ring; and

wherein a spinning curve radius of the blades is less than the initial curve radius of the blades, the spinning curve radius describing an extent of upward deflection of the blades when the boomerang is spinning.

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